

Shinsa

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Problem Statement

Critical thinking and planning are aspects that are challenged when it comes to games like Chess. However, there is almost a saturation to the extent to which variations and permutations of moves are possible thus leading to a need for a game that takes these attributes and competitiveness to the next level. We will provide a more complex yet structured web based game that will adhere to the foibles of current board games and promote a competitive environment.

Background Information

Logical sports have been prevailing since the 6th century while Chess being the first game to be considered a part of logical sports. However, over the years, the moves and strategies of the game have reached to a point of saturation and at times a certain sequence of moves might be in your favor for a given situation. With Shinsa, we are developing on top of the concept of a board game with adding complexities such as a hexagonal $m * n$ grid with color coding and piece rotations. Shinsa would revolutionize logical sports by the new features it adds up. Mathematically, we have a proof that there would never be a standard algorithm in a given scenario which guarantees you a win.

The game would be extended to the whole world where every person irrespective of his / her age would be eligible to play the game. In a competitive online environment, users would be able to compare their rankings and see where they stand.

Requirements

1. Functional

- As a user, I would like to create an account.
- As a user, I would like to port data like profile picture from Facebook or other platforms.
- As a user, I would like to see my current ranking in the game online system.
- As a user, I would like the game to have well implemented smooth interactions and feedback.
- As a user, I would like to see possible moves of a piece when I click or hover my mouse onto it.

- As a user, I would like proper online matching experience without troublesome delay or lag.
- As a user, I would like to be able to make modifications to my profile data such as the display image, email id, etc.
- As a user, I would like to be matched with an opponent that is around the same skill range as me.
- As a user, I would like to see the world rankings.
- As a user, I would like to be able to see where I stand in the rankings with ease.
- As a user, I would like to be able to have an option to concede during a game round.
- As a user, I would like to be able to see a log of all my past games.
- As a user, I would like to add friends.
- As a user, I would like to be able to accept or reject a friend request.
- As a user, I would like to be able to form groups.
- As a user, I would like to be able to start challenge rounds with other teams.
- As a user, I would like to see statistics of a group challenge.
- As a user, I would like to be able to contact the web master or report any bugs.
- As a user, I would like to have some form of communication tools with my matched opponent.
- As a user, I would like to be able to silent a communication source with my opponent (E.g.: Mute chat)
- As a developer, I would like to rigorously test the logic and implementation.
- As a developer, I would like to have some form of tracking system to see the status of the web app.
- As a developer, I would like to setup a "forgot password" feature.
- As a developer, I would like to log all real time game data so that it can be retrieved by the users.

2. Non-Functional

- The app should work on any 2015+ updated web browser
- The app should integrate with Google Plus (if time allows)
- The app should integrate with Twitter (if time allows)
- There should be a mobile version of the app – Android / iOS (if time allows)
- The app should have an admin portal
- As a developer, I would like to use a scalable relational database like MySQL
- The app should have a material design like UI

- As a developer, I would like to create a Java REST API for backend functionality
- The database and the server should be hosted on preferably on two separate T2 or higher machines
- As a developer, I would like to make sure the game does not take up too much of user's browser cache.
- As a developer, I would like to set up proper load balancing so that users are able to connect quickly.
- As a developer, I would like to know how many users were online at a particular time.